

Nina Kreuzenbeck

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Curriculum vitae

Main Research Areas

- Isolierung neuer Naturstoffe
- Charakterisierung von fungalen Sekundärmetabolite-Clustern
- Entwicklung von Symbiose und Multipartner-Interaktionen

Topics

Secondary metabolites from insect-associated microbes

Publications

Fricke J, Schalk F, Kreuzenbeck NB, Seibel E, Hoffmann J, Dittmann G, Conlon BH, Guo H, Wilhelm de Beer Z, Vassão DG, Gleixner G, Poulsen M, Beemelmanns C (2023) Adaptations of *Pseudoxylaria* towards a comb-associated lifestyle in fungus-farming termite colonies. *ISME J* 17(5), 733-747.

Details

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Kreuzenbeck NB, Dhiman S, Roman D, Burkhardt I, Conlon BH, Fricke J, Guo H, Blume J, Görls H, Poulsen M, Dickschat JS, Köllner TG, Arndt HD, Beemelmanns C (2023) Isolation, (bio)synthetic studies and evaluation of antimicrobial properties of drimenol-type sesquiterpenes of *Termitomyces* fungi. *Commun Chem* 6(1), 79.

Details



Kreuzenbeck NB, Seibel E, Schwitalla JW, Fricke J, Conlon BH, Schmidt S, Hammerbacher A, Köllner TG, Poulsen M, Hoffmeister D, Beemelmanns C (2022) Comparative genomic and metabolomic analysis of *Termitomyces* species provides insights into the terpenome of the fungal cultivar and the characteristic odor of the fungus garden of *Macrotermes natalensis* termites. *mSystems* 7(1), e0121421.

Details



Conlon BH, Gostinčar C, Fricke J, Kreuzenbeck NB, Daniel JM, Schlosser MSL, Peereboom N, Aanen DK, de Beer ZW, Beemelmanns C, Gunde-Cimerman N, Poulsen M (2021) Genome reduction and relaxed selection is associated with the transition to symbiosis in the basidiomycete genus *Podaxis*. *iScience* 24(6), 102680.

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Schalk F, Gostinčar C, Kreuzenbeck NB, Conlon BH, Sommerwerk E, Rabe P, Burkhardt I, Krüger T, Kniemeyer O, Brakhage AA, Gunde-Cimerman N, de Beer ZW, Dickschat JS, Poulsen

M, Beemelmanns C (2021) The termite fungal cultivar *Termitomyces* combines diverse enzymes and oxidative reactions for plant biomass conversion. *mBio* 12(3), e0355120.

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Lee SR, Kreuzenbeck NB, Jang M, Oh T, Ko SK, Ahn JS, Beemelmanns C, Kim KH (2020) Xyloneside A: A new glycosylated incisterol derivative from *Xylaria* sp. FB. *ChemBioChem* 21(16), 2253-2258.

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Schalk F, Um S, Guo H, Kreuzenbeck NB, Görls H, de Beer ZW, Beemelmanns C (2020) Targeted discovery of tetrapeptides and cyclic polyketide-peptide hybrids from a fungal antagonist of farming termites. *ChemBioChem* 21(20), 2991-2996.

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PubMed OPEN ACCESS PAPER

Burkhardt I, Kreuzenbeck N, Beemelmanns C, Dickschat J (2019) Mechanistic characterization of three sesquiterpene synthases from the termite-associated fungus *Termitomyces*. *Org Biol Chem* 17(13), 3348-3355.

Details

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Otani S, Challinor V, Kreuzenbeck N, Kildgaard S, Christensen S, Larsen L, Aanen D, Rasmussen SA, Beemelmanns C, Poulsen M (2019) Disease-free monoculture farming by fungus-growing termites. *Sci Rep* 9(1), 8819.

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Guo H, Kreuzenbeck NB, Otani S, Garcia-Altares M, Dahse HM, Weigel C, Aanen DK, Hertweck C, Poulsen M, Beemelmanns C (2016) Pseudoxylallemycins A-F, cyclic tetrapeptides with rare allenyl modifications isolated from *Pseudoxylaria* sp. X802: A competitor of fungus-growing termite cultivars. *Org Lett* 18, 3338-3341.

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Publication list as PDF